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REMARKS/ARGUMENTS

This application has been reconsidered carefully in light of the Office Action dated as mailed on 27 September 2002. A careful reconsideration of the application by the Examiner in light of the foregoing amendments and the following remarks is respectfully requested.

5 This application became abandoned for failure to timely file a response to the Office Action dated as mailed on 27 September 2002. This Amendment is accompanied by a Petition and fee believed proper and appropriate to revive this unintentionally abandoned application.

10 There is no additional claim fee due for this Amendment because the total number of claims does not exceed the number of independent and dependent claims for which fees have previously been paid.

Amendment to the Claims

15 By the above, claim 16 has been rewritten to improve its form and to more clearly define the invention which Applicant regards as his invention

Claims 2-9, 11-19 and 21-26 remain in the application.

Claim Rejections - 35 U.S.C. §112

Claims 16-19 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5 By the above, claim 16 has been rewritten in an effort to make the limitations appearing therein more clear.

In view thereof, the indefiniteness grounds of rejection is believed to be clearly inapplicable or otherwise to have been overcome and notification to that effect is solicited.

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Claim Rejections - 35 U.S.C. §103

1. Claims 7-9, 11-19, 21 and 23-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,336,654 to Stein et al. (hereinafter “Stein”) in view of U.S. Patent 6,145,876 to Hamilton (hereinafter “Hamilton”).

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The Action alleges that Stein discloses an “inflator 10 comprising [an] elongated hollow tubular/arcuate member, comprising elements 24 and 30, containing an elongated supply of pyrotechnic gas generant material reactable to produce a

20 supply of gas (column 2, lines 25-27), and including a plurality of longitudinally-spaced gas exits (column 2, lines 10-11).” The Action further alleges

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that Hamilton shows an elongated supply of gas generant having the claimed dimensions and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include this ratio for the dimension of the elongated gas generant so that a sufficient amount of gas generant is provided to properly inflate the curtain airbag.

Such combination of references is believed to be wrong or improper and the rejections based thereon are similarly or correspondingly believed to be wrong and improper in a number of respects and are respectfully traversed.

Stein is entitled and directed to "INFLATABLE SIDE CURTAIN." Clearly, as the inflator disclosed in Stein is for the inflation of an inflatable curtain, the inflator provided in Stein, without modification, produces sufficient inflation gas to inflate an inflatable curtain. Thus, the Action rationale for the proposed combination of Hamilton with Stein (i.e., using an elongated supply of gas generant, as in Hamilton and allegedly having the claimed dimensions "so that a sufficient amount of gas generant is provided to properly inflate the curtain airbag") is contrary to the teaching of the cited documents. That is, as the inflator of Stein provides the right amount of gas to properly inflate the inflatable side curtain, no reason has been identified for modifying that supply of gas generant to use gas generant having the

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dimensions of the gas generant in Hamilton, let alone use a tubular member having a length to diameter ratio greater than 20, as claimed. Consequently, the Action has clearly failed to establish a proper basis for the proposed modification of Stein.

Further, Stein identifies that reference numeral 10 refers to the entire vehicle safety apparatus shown therein. Stein further identifies that item 24 constitutes an inflator. (See column 1, line 66 through column 2, line 7, for example.) Stein still further identifies that item 30 constitutes a first end portion of a fill tube 22 “for receiving fluid from the inflator 24.” (See column 2, lines 8-10, for example.)

Thus, the inflator in Stein is item 24, not an elongated hollow tubular member having a length to diameter ratio greater than 20 and containing an elongated supply of pyrotechnic gas generant material reactable to produce a supply of gas, as claimed.

Moreover, the first end portion 30 of the fill tube 22 is not believed to contain an elongated supply of pyrotechnic gas generant material reactable to produce a supply of gas, as claimed. In this regards, Stein specifically teaches that the inflator 24 and not the fill tube 22 or the fill tube end portion 30 contains the gas generating material. (See column 2, lines 20-28, for example.)

Claim 7 is an independent claim directed to an inflator that includes an arcuate elongated hollow tubular member containing an elongated supply of

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pyrotechnic gas generant material reactable to produce a supply of gas. The tubular member is required to have a length to diameter ratio greater than 20. The tubular member is also required to include a plurality of longitudinally-spaced apart gas exit orifices wherethrough at least a portion of the supply of gas provided by reaction of the pyrotechnic gas generant material can be expelled from the tubular member. Thus, claim 7 requires that the elongated hollow tubular member, not merely the inflator, contain an elongated supply of pyrotechnic gas generant material reactable to produce a supply of gas and that the tubular member has a length to diameter ratio greater than 20.

In view of the above, the inflator of claim 7 is not believed to be shown or suggested by the prior art and notification to that effect is solicited.

Relative to claims 8, 13 and 25, the Action alleges that “Hamilton further discloses elongated diffuser/deformable discharge treatment element 96 secured adjacent the inflator 52 for direction of gas into airbag 24, with gas flow paths 100, best depicted in Figs 6A-D” and that “it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this diffuser arrangement, as shown in Hamilton, to ensure that the gas is properly distributed towards inflation of the elongated airbag.”

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Claims 8 and 13 are independent claims directed inflation assemblies including an inflator such as generally set forth in claim 7 and also including either a specified elongated diffuser device (claim 8) or a specified elongated discharge treatment element (claim 13).

5 As claims 8 and 13 each requires “an inflator comprising an elongated hollow tubular member containing an elongated supply of pyrotechnic gas generant material reactable to produce a supply of gas, the tubular member having a length to diameter ratio greater than 20 and including a plurality of longitudinally-spaced apart gas exit orifices wherethrough at least a portion of the supply of gas provided by
10 reaction of the pyrotechnic gas generant material can be expelled from the tubular member” and, as set forth above, such an inflator is not shown or suggested by Stein, alone or in combination with Hamilton, such claims are, at least for such reasons, also believed to be patentable thereover and notification to that effect is solicited.

15 Claims 11, 12, 14, 15 and 25, each depends, directly or indirectly, on claim 13. As claim 13 is believed to be patentable over the prior art of record, as discussed above, so too claims 11, 12, 14, 15 and 25 which are each dependent thereon are also believed to be patentable thereover and notification to that effect is solicited.

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Claim 9 depends on claim 8. As claim 8 is believed to be patentable over the prior art of record, as discussed above, so too claim 9 which is dependent thereon is also believed to be patentable thereover and notification to that effect is solicited.

5 Claim 16 is also directed to an inflation assembly. Claim 16 requires that the inflation assembly include:

 an elongated inflator adapted to provide a gas-containing discharge through selected locations spaced along the length of the inflator;

 an elongated discharge treatment element secured with the inflator at
10 selected positions along the respective lengths of the inflator and the discharge treatment element, the discharge treatment element effective to treat at least a portion of the gas discharged from the inflator contacting thereagainst and to deform to create spaced apart gas flow paths between the inflator and the treatment element, the gas flow paths spaced apart along the respective lengths of the inflator and the treatment
15 element; and

 an inflatable curtain airbag cushion in inflation fluid communication with the inflator.

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Thus, claim 16 requires that the inflation assembly include “an elongated inflator adapted to provide a gas-containing discharge through selected locations spaced along the length of the inflator”.

It is respectfully submitted that Stein fails to show or suggest such an inflation assembly.

First, as set forth above, the inflator 24 of Stein is not an elongated inflator as claimed. Moreover, the inflator 24 of Stein is not adapted to provide a gas-containing discharge through selected locations spaced along the length of the inflator, as required by claim 16. Instead, Stein discloses that “[t]he inflator 24 is connected in fluid communication with the inflatable curtain 14 through a fill tube 22.” (Column 2, lines 6-7.) Stein still further discloses that “[t]he second end portion 32 of the fill tube 22 has a plurality of openings that provide fluid communication between the fill tube 22 and the inflatable curtain 14.” (Column 2, lines 10-13.) Stein also discloses that the fill tube 22 may be omitted and the inflator 24 may be connected in direct fluid communication with the inflatable curtain 12. Stein specifically teaches that in such a configuration, “the inflator 24 would be connected to an end of the inflatable curtain 14 or to a location on the curtain between the ends of the curtain.” (Column 2, lines 13-19.)

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Nowhere does Stein, alone or in combination with Hamilton, show or suggest an inflation assembly that includes “an elongated inflator adapted to provide a gas-containing discharge through selected locations spaced along the length of the inflator”, as required by claim 16.

5 Claims 17-19, each depends, directly or indirectly, on claim 16. As claim 16 is believed to be patentable over the prior art of record, as discussed above, so too claims 17-19 which are each dependent thereon are also believed to be patentable thereover and notification to that effect is solicited

10 Claims 21 and 24 are independent claims directed to a specified method of inflating an inflatable device. As a part of such specified methods, claims 21 and 24 each requires “reacting an elongated supply of pyrotechnic gas generant material within an elongated hollow tubular member of an inflator having a length to diameter ratio greater than 20 to produce a supply of gas along the length of the tubular member”.

15 Neither Stein alone nor in combination with Hamilton shows or suggests reacting an elongated supply of pyrotechnic gas generant material within an elongated hollow tubular member of an inflator having a length to diameter ratio greater than 20 to produce a supply of gas along the length of the tubular member, as claimed.

As submitted above, the fill tube of Stein is not an inflator. In any case, nowhere does Stein show or suggest reacting a gas generant material within such a fill tube let alone reacting an elongated supply of pyrotechnic gas generant material within such a fill tube.

5 In view at least thereof, claims 21 and 24 are believed to be patentable over the prior art of record and notification to that effect is solicited.

 Claim 23 is dependent on claim 21 and is believed to be patentable over the prior art of record at least for the reasons advanced above relative to the patentability of claim 21.

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2. Claims 2 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stein in view of Hamilton and further in view of U.S. Patent 5,845,933 to Walker et al. (hereinafter "Walker").

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Such rejections are respectfully traversed.

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 Claim 2 depends directly on claim 13 and requires that at least a portion of the supply of pyrotechnic gas generant material comprise a plurality of cylindrical annular-shaped grains axially aligned end to end along the length of the tubular member. Claim 4 depends directly on claim 2 and requires that the cylindrical annular-shaped grains form an internal cavity longitudinally extending substantially

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through the supply of pyrotechnic gas generant material, the inflator additionally comprising an elongated ignition article extending within the internal cavity.

As the shortcomings of Stein and Hamilton relative to underlying claim 13 are not overcome by the further combination of Walker therewith, claims 2 and 4 are believed to be patentable over the prior art of record and notification to that effect is solicited.

Also, the still further proposed modification to include an elongated ignition article extending within an internal cavity longitudinally extending substantially through the cylindrical annular-shaped grains, as required by claim 4, is not supported by the prior art and the withdrawal of such rejection is respectfully requested.

3. Claim 3 was rejected under 35 U.S.C. §103(a) as being unpatentable over Stein in view of Hamilton and Walker and further in view of U.S. Patent 6,068,290 to Sheng (hereinafter "Sheng").

4. Claims 5 and 6 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stein in view of Hamilton and further in view of U.S. Patent 5,551,724 to Armstrong III et al. (hereinafter "Armstrong").

Claims 3, 5 and 6 each depend directly or indirectly on claim 13. As the shortcomings of the proposed combination of Stein and Hamilton relative to claim

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13 are not believed overcome by the further proposed combination of either Sheng or Armstrong therewith, these claims are believed allowable over the prior art of record and notification to that effect is solicited.

5. Claims 22 and 26 were rejected under 35 U.S.C. §103(a) as being unpatentable over Stein in view of Hamilton and further in view of U.S. Patent 4,158,696 to Wilhelm III et al. (hereinafter "Wilhelm").

Claim 22 depends on claim 21 and claim 26 depends on claim 24. As the shortcomings of the proposed combination of Stein and Hamilton relative to claims 21 and 24 are not believed overcome by the further proposed combination of Wilhelm therewith, claims 22 and 26 are believed to be allowable over the prior art of record and notification to that effect is solicited.

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Conclusion

It is believed that in view of the above, all pending claims in condition for allowance and notification to that effect is solicited. However, should the Examiner detect any remaining issue or have any question, the Examiner is kindly requested to contact the undersigned, preferably by telephone, in an effort to expedite examination of the application.

Respectfully submitted,



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